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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,364	12/12/2001	Yoshio Yamada	YAO-4351US	8051

7590                    07/21/2003

RATNER AND PRESTIA  
Suite 301  
One Westlakes, Berwyn  
P.O. Box 980  
Valley Forge, PA 19482-0980

[REDACTED] EXAMINER

EVANS, GEOFFREY S

[REDACTED] ART UNIT      [REDACTED] PAPER NUMBER

1725

DATE MAILED: 07/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/017,364	YAMADA ET AL.
	Examiner Geoffrey S Evans	Art Unit 1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 27-52 is/are pending in the application.
- 4a) Of the above claim(s) 41-52 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 27,28,33-35 and 40 is/are rejected.
- 7) Claim(s) 29-32 and 36-39 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____                                     |

### DETAILED ACTION

1. The abstract of the disclosure is objected to because of the inclusion of the word "comprises", which is legal phraseology. Correction is required. See MPEP § 608.01(b).
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
3. Claims 41-52 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheider in U.S. Patent No. 4,853,512 in view of Okabe et al. in Japan Patent No. 61-219,520 and Takarada in U.S. Patent No. 3,778,579. Scheider has an electric discharge machining apparatus with a first holder (element 11) for holding a workpiece (element 12), a tool electrode (element 10) arranged opposite to the workpiece. Scheider does not disclose a power supply circuit with a capacitor, a current detecting element, a switching element, and a control unit, wherein when a short circuit detection is input, the switching element is turned off and, after predetermined time, the switching element is turned on. Okabe et al. (520) teaches a capacitor (3) charged by a power supply through a resistor (7,12), a current detecting element (9) that detects the initiation of discharge and not short circuit current, a switching element (5), and a control unit (elements 10 and 14). Takarada teaches using a current sensor (element 24) to detect the occurrence of a short circuit and stopping current flow in the event of a short circuit. It would have been obvious to adapt Scheider in view of Okabe et al. and Takarada to provide this to prevent damage to the workpiece and the electrode in the event of a short circuit.

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheider in view of Okabe et al. and Takarada as applied to claim 27 above, and further in view of Lobur in U.S. Patent No. 3,435,176. Lobur teaches withdrawing the electrode in the event of a short circuit. It would have been obvious to adapt Scheider in view of Okabe et al., Takarada and Lobur to provide this to protect the electrode and to end the short circuit condition as quickly as possible.

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8. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheider in view of Okabe et al. and Takarada as applied to claim 27 above, and further in view of Shih in U.S. Patent No. 6,590,178 or Angelucci et al. in U.S. Patent No. 3,725,631. Both Shih and Angelucci et al. individually teach having a space between the motor and the second holder. It would have been obvious to adapt Scheider in view of Okabe et al., Takarada and Shih and Angelucci to provide this to prevent heat transfer between the motor and the second holder.

9. Applicant cannot rely upon the foreign priority papers to overcome this rejection with respect to the Shih reference because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

10. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheider in view of Okabe et al. and Bell, Jr. in U.S. Patent No. 3,809,847. Scheider has an electric discharge machining apparatus with a first holder (element 11) for holding a workpiece (element 12), a tool electrode (element 10) arranged opposite to the workpiece. Scheider does not disclose a power supply circuit with a capacitor, nor does Scheider disclose a switching element intervening a discharge circuit between the capacitor and the workpiece. Okabe et al. (520) teaches a capacitor (3) charged by a power supply, a switching element (5), and a control unit (elements 10 and 14) for controlling the switching element. Bell, Jr. teaches controlling the duration of a pulse discharge by turning on and off a switching element (element 38 in figure 3). It would have been obvious to adapt Scheider in view of Okabe et al. and Bell, Jr. to provide this to be able to repeatedly control the discharge process.

11. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheider in view of Okabe et al. and Bell, Jr. (847) as applied to claim 34 above, and further in view of Futamura et al. in U.S. Patent No. 5,111,017. Futamura et al. in column 6, lines 30-34 teach keeping the machining pulse on-time duration short to prevent electrolysis. It would have been obvious to adapt Scheider in view of Okabe et al. and Bell, Jr. to provide this to prevent rusting of the electrode and the workpiece.

12. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheider in view of Okabe et al. and Bell, Jr. (847) as applied to claim 34 above, and further in view of Shih in U.S. Patent No. 6,590,178 or Angelucci et al. in U.S. Patent No. 3,725,631. Both Shih and Angelucci et al. individually teach having a space between the motor and the second holder. It would have been obvious to adapt Scheider in view of Okabe et al., Bell, Jr. and Shih and Angelucci to provide this to prevent heat transfer between the motor and the second holder.

13. Applicant cannot rely upon the foreign priority papers to overcome this rejection with respect to the Shih reference because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

14. Claims 29-32, and 36-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S Evans whose telephone number is (703)-

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308-1653. The examiner can normally be reached on Mon-Fri 6:30AM to 4:00 PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703)-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-305-7718 for regular communications and (703)-305-5585 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0661.



Geoffrey S. Evans  
Primary Examiner  
Art Unit 1725

GSE  
July 14, 2003